



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,159	02/05/2002	Hock Chuan Tan	MTI-31608	8043

22202 7590 04/02/2003

WHYTE HIRSCHBOECK DUDEK S C
111 EAST WISCONSIN AVENUE
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER

LE, THAO P

ART UNIT	PAPER NUMBER
----------	--------------

2818

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,159

Applicant(s)

TAN ET AL.

Examiner

Thao P Le

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-148 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-148 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

1. Examiner withdraw the restriction/election made on Paper No. 6.
2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-54 and 112-148: draw to a stack die assembly that is classified in **class 257, subclass 565**.
 - II. Claims 55-111: draw to a method of manufacturing a stack die assembly that is classified in **class 438 subclass 202**.
3. Inventions I and II above are related as device and method. The inventions are distinct if it can be shown that either:
 - a) the product (I) as claimed can be made by another and materially different process.
(MPEP 806.05(e)), or
 - b) the method (II) as claimed can be practiced by another materially different product or by hand.

For instance, unpatentability of the group I invention would not necessarily imply unpatentability of the group II invention, since the device of the group I invention could be made by other processes materially different from those of the group II invention.

Also, the method and device are classified under two different classes which required serious burden search.

4. Because the inventions are distinct from the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of the inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

6. Both groups I and II in this application contain claims directed to patentably distinct species of the claimed invention. Either group I or II is elected, applicant is required to further select one of following species.

7. Applicant's selection of Group I made on 03/10/03 is acknowledged. However, the species in Group I were restricted improperly. Below is correct restriction/election of group I, and Applicant is required to select one of 7 species below:

Species I: Claims 1-14, 47-50, 112-119, 137-139, and 144 directed to a stacked die assembly comprising a first die, a second die, wherein the second die having a recessed edge portion so the bonding element extending from the bond pads of the first die is positioned within the recessed edge portion of the second die.

Species II: Claims 15-22, 128-131, 142, 51 directed to a stacked die assembly comprising a first die, a second die wherein the first die having a recess formed therein.

Species III: Claim 23 directed to a stacked die assembly comprising a first die, a second die, and a third die wherein the first die having a recess formed therein.

Species IV: Claims 32, 53, 120-123, 128-131, 140, 142, 147, directed to a stacked die assembly comprising a first die, and a second die wherein the first die having a recess formed therein.

Species V: Claims 24-31, 146, 124-127, 141, 52, directed to a stacked die assembly comprising a first die, a second die, a third die, wherein the first die having a recess formed therein, the second die formed in the recess of the first die, the third die having a recess edge portion so the bonding element extending from the bond pads of the second die is positioned within the recessed edge portion of the third die.

Species VI: Claims 33-38 directed to a stacked die assembly comprising a first die and a second die wherein the first die having a recess formed therein and the second die having a recessed edge portion.

Species VII: Claims 39-40, 41-46, 54, 132-136, 143, directed to a first die, a second die wherein the second die having a recess formed therein.

8. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable

thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao P Le whose telephone number is 703-605-1187. The examiner can normally be reached on M-T (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 703-308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-4015 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 10/068,159

Page 6

Art Unit: 2818



Thao Phuong Le
March 27, 2003



HOAI HO
PRIMARY EXAMINER